REMARKS

Applicant has thoroughly considered the Examiner's remarks and the application has been amended in light thereof. Claims 1-23 are presented in the application for examination. Claims 1-2, 4-5, 8, 13 and 16-17 have been amended and claims 18-23 have been added by this Amendment A. Reconsideration of the application claims as amended and in view of the following remarks is respectfully requested. The following remarks will follow the sequence of the Office action.

Claims 2, 4 and 8 have been amended to avoid the alternative language. Thus, the claims comply with 35 USC §112 and the rejection should be withdrawn.

Claims 1-17 stand rejected under 35 USC §103(a) as being obvious over Pellegrino in view of Leshmen. Applicant disagrees with this rejection in that, among other reasons: (1) there is no basis for combining the references, (2) the combined references do not make obvious claims 1-23 which recite the combination of a distance learning program and a tracker software program creating a progressive file history, (3) the combined references do not make obvious claims 8, 18 and 19 which recite the combination of a distance learning program and a tracker software program including a user note attached to any object page and displayed to the user and the teacher, (4) the combined references do not make obvious claims 21-23 which recite the combination of a distance learning program and a tracker software program including page visitation annotations accessible to the user and the teacher, and (5) the combined references do not make obvious claims 2 and 17 which recite the combination of a teaching system including a site map displayed to the user and the teacher.

1. THERE IS NO BASIS FOR COMBINING THE REFERENCES.

Applicant submits that Pellegrino (US 6149441) in light of Leshmen (US 5870559) do not convey an obvious path to the development and implementation of the functionality of the method and system of the invention for at least the following reasons. In fact, these references teach away from each other. Pellegrino describes recording student actions in a student or class-specific database. For example, see column 22: lines 42-52: "to record the actions taken by each student as he or she progresses through the selections provided...", or "... recorded in a student or class-specific database." The student actions recorded are described in 22/24-28 as follows: "A typical navigational element provides the student with selections or choices...", "which upon selection may display pop-up text or may transfer the student to one or more specified URLs."

In light of Leshmen, Applicant submits that no clear path to the full and primary functionality of the system and method of the invention exists in descriptions. For example, there is a big hole in the prior art descriptions for determining the various objectives of the system and method of the invention. How is real-time student tracking acquired, stored, and displayed when it is necessary to determine the exact location of a student within an online educational course at all times? How is the acquisition of tracking performed so in order to take into consideration the effects of browser caching?

Thus, it appears that the Examiner is selectively combining the references by hindsight analysis because the combinations as recited by the claims are not taught by Pellegrino or Leshmen and there is no basis for combining Pellegrino and Leshmen as the Examiner suggests. Accordingly, Applicant requests that the rejection of the claims under 35 USC 103 based on these references be withdrawn.

2. CLAIMS 1-23 RECITE THE COMBINATION OF A DISTANCE LEARNING PROGRAM AND A TRACKER SOFTWARE PROGRAM CREATING A PROGRESSIVE FILE HISTORY. THIS COMBINATION IS UNOBVIOUS OVER THE COMBINED REFERENCES.

The system and method of the invention records user actions, specifically the actions a user takes in navigating or moving through an educational course in its primary operation. The system and method also record specific actions (such as student button clicks) in an auxiliary capacity. What is not pointed out in Pellegrino is the need to determine and track where a student presently is within the educational course (the specific page that the student is currently being presented). The term tracking in the context of the system and method of the invention includes ascertaining and recording movement from a page within the education course to any other page of the course and so on. In the case of Pellegrino, an action was given two examples: that of bringing up a pop-up window of text, or to transfer a student to another URL. If the user clicks on the "Navigation Element" button of Pellegrino's model to bring up the pop-up text, and then clicks on another button on the "Navigation Element" to transfer to another URL (without closing the pop-up), the tracking cannot determine if the student goes back and rereads the pop-up text or if the student is now viewing the transferred URL page. By having a multiplicity of actions that can be recorded (as described in Pellegrino) and not tracking one specific element type (a student action to change pages), it is more difficult or impossible to determine exact paths

and the amount of time spent on any particular page of the course. Leshmen is similarly deficient in that it fails to recognize the need for such tracking.

The system and method of the invention does not introduce this complexity of discerning user actions as taught by Pellegrino, because the invention's primary function is concerned with the action used to transfer the student to another page of the course. As indicated by amended claims 1 and 16, the tracker software tracks the user's progress as the user navigates to create a progressive history of each of the pages accessed as the user navigates through the linked pages of the distance learning program. Thus, the claims as amended distinguish over the Pellegrino and Leshmen patents.

One of the problems that the system and method of the invention addresses is the ability to perceive tracking data from user (student) requests to the education server. Main stream browsers (such as employed by Pellegrino and Leshmen) in their default cache configuration setting, make a request to the (education) server the "first-time" a page is requested. In successive student attempts to transfer to the page that has been previously requested in their current session, the browser will not communicate a request to the server for that page. This is due to the browser's caching feature. The first time a page is loaded into the browser, it stores a copy in the cache, and presents the page. Subsequent transfers to this same page will cause the browser to load the page from its cache, so for efficiency purposes the browser does not request the page from the server. This simplification of a browser's cache system functionality points out that utilization of server requests, or the parsing of server access logs, is not an effective means of capturing a students travels through a course. Because the data of the student proceeding to a page already loaded by the browser will not cause the browser to always send a request for the page.

In contrast, the invention tracks the user's progress as the user navigates through the linked pages and creates a progressive history file of each of the pages accessed by the user, as recited by amended claims 1 and 16. Thus, the invention is able to perceive tracking data from user (student) requests to the education server and provide an accurate progressive history file, a feature not taught by either Pellegrino or Leshmen. Thus, applicant submits that claims 1 and 16 and the claims depending therefrom are patentable over Pellegrino and Leshmen so that the rejection should be withdrawn.

3. CLAIMS 8, 18 AND 19 RECITE THE COMBINATION OF A DISTANCE LEARNING PROGRAM AND A TRACKER SOFTWARE PROGRAM INCLUDING A USER NOTE ATTACHED TO ANY OBJECT PAGE AND DISPLAYED TO THE USER AND THE TEACHER. THIS COMBINATION IS UNOBVIOUS OVER THE COMBINED REFERENCES

One aspect of the invention that the Examiner appears to have overlooked is attaching user notes displayed to the user and the teacher as recited by claim 8 and by new claims 18 and 19. As indicated in the specification at page 7, lines 7-12 and page 10, lines 11-14 (emphasis added):

> A user can create messages or **notes** for himself or herself and attach such messages and/or **notes** to any object page on the site map selected by the user. It is possible that hot links to Internet URLs may be included within the messages and **notes**. The **notes** are stored on the SQL server with the history file for each user. The messages and **notes** are displayed to the user and/or teacher on the site map.
>
> When the user wishes to add a **note** to a page's graphical representation, they <CNTL>click the page node. A dialog box comes up to allow input of a **note**. The user types in a **note** that will be associated with this page. The **note** will then become available and viewable in this and all subsequent sessions that the user has with the course.

The prior art fails to recognize this aspect of the invention, particularly with respect to the ability of the teacher (a third party) to view the notes of the user (a student). Instead, the database approach of Pellegrino teaches away from such notes and the Leshmen does not recognize their importance.

Thus, claims 8, 18 and 19 should be allowed.

4. CLAIMS 21-23 RECITE THE COMBINATION OF A DISTANCE LEARNING PROGRAM AND A TRACKER SOFTWARE PROGRAM INCLUDING PAGE VISITATION ANNOTATIONS ACCESSIBLE TO THE USER AND THE TEACHER. THIS COMBINATION IS UNOBVIOUS OVER THE COMBINED REFERENCES.

Another aspect of the invention is its navigation capability coupled with the page visitation annotations. New claims 21-23 have been added to cover this aspect of the invention. This aspect enables the student to easily see where they have been, where they currently are, and where they are going. When a new link is clicked from within the sitemap or the course, the

"current page" annotation moves from the page they were on to the page they are going to within the sitemap graphic representation. As indicated in the specification at page 8, lines 10-14 and from page 10, line 15 to page 11, line 2 (emphasis added):

> If the page currently visited by the user 228 resides deeper in the URL structure than what is currently in view, the closest parent to the page currently visited, that is in view, will be **annotated** with an arrow, as shown in Fig. 6. In this way the user can know where in the URL structure they currently reside, even if the page they are currently at is not in view.
>
> The tracker also provides certain user specific information to the course. This includes the user type, full name, and email address of the "Instructor Group" they belong to. There is also custom navigation data available to scripts executing on the client. This includes data used to **annotate** various navigation elements in the browser's view of the "menu" frame. One of the navigation elements is the ability of the user to check off sections of the course that they have completed. This in contrast to the means the tracker utilizes to **annotate** the "visitation" status of a page in that the user is directly controlling the state of the **annotations**. So although a user may "visit" a page within a course, they may feel that they have not fully completed reading it or completed activities on it. Using the "user custom" data feature of the tracker, they will dictate when they have completed a page, and can mark it as such.
>
> The tracker and site map applets maintain a special variable that is a descriptor for the type of user that is currently logged on. The primary user types are "Student" and "Teacher." When the user has been determined to be a teacher, special menu items appear on and within the primary menu area associated with the site map window. Of special interest is the "Special->Student Map" menu item. Through it, each student will have their site map **annotations** viewable by the current teacher user, if they are a member of the current teacher user's "Instructor Group." If they are a member of the current teacher user's instructor group, their user, first and last names will be included in a selection list that the teacher uses to select each of his or her students site map **annotations**.

There is no reference or functionality described in the cited patents that points to this aspect (how to ascertain the current page visited and to annotate the sitemap based on the current location within the distance education course). In addition, as noted above, no cited patents discuss or deal with browser caching, which impacts the ability to ascertain page-tracking information.

Leshmen does not provide means for annotating the "current page" visited by a user (or for annotating any one specific page, for that matter). Leshmen's method of acquisition for user specific annotations is based upon parsing web server access logs. There is no disclosure relating to live data annotations. Leshmen is not concerned with user actions; instead, it focuses

on the results of user actions. In the Leshmen model, it should be seen by the preceding description that the data needed to determine every student move within the educational course could not be gleaned by parsing server access logs due to browser caching. The method of ascertaining the student's movement within an educational course must come from user movement actions taken within the educational course. This dictates capturing the data at the client (browser), unless the browser's cache system is configured to a non-standard and inefficient setting (where the browser makes a request for every page regardless of whether it resides in its cache, or where it disregards the cache system entirely). These browser cache configuration settings would be impractical due to the increased traffic generated on the network, and also the need to manage client configurations on a global network.

5. CLAIMS 2 AND 17 RECITE THE COMBINATION OF A TEACHING SYSTEM INCLUDING A SITE MAP DISPLAYED TO THE USER AND THE TEACHER. THIS COMBINATION IS UNOBVIOUS OVER THE COMBINED REFERENCES.

Another aspect of the invention that the Examiner appears to have overlooked is a site map displayed to both the user and the teacher, as recited by claims 2 and 17. In particular, the site map provides the user's progress at any instant in time to both the user (a student) and the teacher (a third party). The progress is based on the history file. As indicated in the specification at page 5, lines 22-27 (emphasis added):

> When a user opens the **site map**, the "common" **site map** data that resides on the SQL server is initialized. The data for the **site map** view was created by the course designer using a **site map** entry utility. When the user progresses through the course, a color-coded trail marks his or her progress on the **site map** whether the user navigates through the course using the web browser or **site map**. Thus, by accessing the **site map** of a particular course, the user and/or teacher may observe the user's progress through the respective course.

As noted above, Pellegrino employs a database and Leshmen teaches website management via a log file. Since these references do not each displaying the site map to both the teacher and the user, the rejection of claims 2 and 17 must be withdrawn.

CONCLUSION

For the reasons noted above, claims 1-23 should be allowed as patentable. In addition, it is noted that each of the dependent claims is separately patentable and each is patentable based on its dependency from a patentable independent claim. In applicant's view, the prior art noted in the

Office action but not relied upon by the Examiner is less relevant that the Pellegrino and Leshmen.

It is felt that a full and complete response has been made to the Office action and, as such, places the application in condition for allowance. Such allowance is hereby respectfully requested. If the Examiner feels, for any reason, that a personal interview will expedite the prosecution of this application, he is invited to telephone the undersigned.

Enclosed is a check for $1,068.00 in payment of the additional claim fees and three month extension of time. If there are any additional charges in this matter, please charge Deposit Account No. 19-1345.

Respectfully submitted,

Frank R Agovino

Frank R. Agovino, Reg No.27,416
SENNIGER, POWERS, LEAVITT & ROEDEL
One Metropolitan Square, 16th Floor
St. Louis, Missouri 63102
(314) 231-5400

FRA/cwa

Express Mail Label No. EV324379382US